



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,212	10/15/2003	Thomas E. Blake III	TRW(FAS)6480	5897

26294 7590 01/10/2007  
TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P.  
1300 EAST NINTH STREET, SUITE 1700  
CLEVEVLAND, OH 44114

EXAMINER
----------

KRISHNAMURTHY, RAMESH

ART UNIT	PAPER NUMBER
----------	--------------

3753

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/10/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/686,212

Applicant(s)

BLAKE ET AL.

Examiner

Ramesh Krishnamurthy

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 5, 7 - 20 and 22 - 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 - 20 and 22 - 25 is/are allowed.
- 6) ☒ Claim(s) 1 - 5, 7 and 10 - 12 is/are rejected.
- 7) ☒ Claim(s) 8, 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 3753

This office action is responsive to amendment filed 10/17/2006.

**Claims 1 – 5, 7 – 20 and 22 – 25 are pending.**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 5, 7 and 10 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Misner (US 2002/0164943) in view of Oppermann et al. (US 2003/0019527).

Misner discloses (Figs. 1 – 6) a pressure relief valve (10) for relieving air pressure from a passenger compartment of a vehicle, the valve comprising:

A base (20) having a peripheral portion, a central opening (25a, 25b) extending through the peripheral portion; and

A plurality of flaps (42a, 42b) for closing the central opening of the base, each flap having an outer end connected with the peripheral portion of the base and an inner end that is movable relative to the peripheral portion and the other flaps;

Each flap having opposite surfaces against which air pressure acts, differential air pressure acting on opposite surfaces causing the flap to move. A support portion (30) is included in the base that divides the central opening into a plurality of openings (25a, 25b). A hinge (44a, 44b) is provided enabling the movement of the inner end of the flap relative to its outer end. A rim is considered to be inherently molded to the base in Misner. The rim additionally includes a locking portion (16) adapted to secure the

Art Unit: 3753

valve to a panel of the vehicle, and further being adapted to seal against the panel of the vehicle.

The disclosure of Misner discloses the claimed invention with the exception of explicitly disclosing each flap to move about a hinge wherein the hinge comprises a narrow portion of material formed between the slots in the flap.

Oppermann et al. discloses a pressure relief valve comprising a valve member (70 in Fig. 6 for example) that has a plurality of flaps (72, 74, 76, 78) for the purpose of providing enhanced sensitivity since each flap could deflect with respect to other flaps independently thereby providing quicker relief than possible with an undivided valve member. Furthermore the flaps move about a hinge wherein the hinge comprises a narrow portion of material formed between slots in the flap.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in Misner each flap of the plurality of flaps to move about a hinge wherein the hinge comprises a narrow portion of material formed between the slots in the flap, for the purpose of providing quicker relief than possible with an undivided valve member, as evident from Oppermann et al.

3. Claims 13 – 20 and 22 – 25 are allowed.
4. Claims 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

5. Applicant's arguments with respect to claims rejected above have been considered but they are not persuasive. Applicant's argument concerning Misner is that If the air exhauster of Misner were modified to have only narrow hinges, the hinges (44a, 44b) would be less likely to bias the flaps (40) because narrow hinges may not provide such a biasing force, rendering the air exhauster of Misner no longer satisfactory for its intended purpose. It is noted that in the combination set forth in the office action above, single flap in Misner is being modified to have a plurality of petals/flaps as taught by Oppermann et al. and as such the hinge portion corresponding to each of the plurality flaps would still be capable of providing the desired biasing force. Concerning the argument that the proposed modification requires a substantial reconstruction and redesign of the primary reference, it is noted that the plurality of petals/flaps in Oppermann et al. is also molded from a single piece and as such could be easily incorporated into the production method used in Misner. Regarding the argument that Oppermann et al. is non-analogous art in comparison to that of Misner, it is noted that both Oppermann et al. and Misner are concerned with the same problem of using a flexible material valve to control air flow thereacross. As for improper hindsight argument in combining the references in the office action, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a

Art Unit: 3753

reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

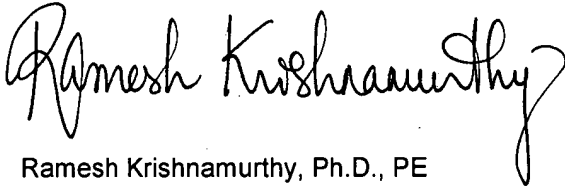
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (571) 272 – 4914. The examiner can normally be reached on Monday - Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel, can be reached on (571) 272 – 4929. The fax phone number for the organization where this application or proceeding is assigned is (571) 273 – 8300.

Art Unit: 3753

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Ramesh Krishnamurthy". The signature is fluid and cursive, with the first letter of each name being capitalized and prominent.

Ramesh Krishnamurthy, Ph.D., PE  
Primary Examiner  
Art Unit 3753